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ABSTRACT

There still remains in our social institutions and individual lives a considerable splitting between feminine and masculine gender distinctions. The present study determined the dimensionality of the space of 53 admirable personality traits hypothesized to relate to femininity-masculinity and creativity, and assessed preferences of females versus males with regard to emerging feminine-masculine trait clusters. Sixteen female and 43 male masters students in business administration sorted the traits from "least admirable" to "most admirable." A four dimensional scaling solution was accepted, with Dimension I interpreted as an Evaluation dimension, Dimension II as an Emotional/Unemotional dimension, Dimension III undefined, and Dimension IV as a Potency/Activity dimension. The sex differences which emerged in this study indicated that women admired hypothesized "feminine" traits more than did men, yet they also admired aspects of potency more than did men. Thus, the women were seen as "androgynous", incorporating both feminine characteristics of sensitivity and emotionality and potency aspects of masculinity. The preferences of the men were contradictory. (Author/GSK)

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MALE/FEMALE PREFERENCES FOR MASCULINE-FEMININE TRAIT CLUSTERS DERIVED FROM A MULTIDIMENSIONAL SCALING OF HYPOTHESIZED MASCULINE-FEMININE AND CREATIVE-NONCREATIVE TRAIT TERMS

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Of the studies of structure of perceived personality trait relationships reviewed by Rosenberg and Sedlak (1972), none concerns itself with positive, potentially admirable traits only. The universe of personality trait terms consists of approximately 4000 traits (Rosenberg & Sedlak, 1972), thus claims at representing even the potentially admirable traits in this universe seem foolhardy indeed. The present study was limited to a total of 53 traits and had a twofold purpose: (1) to test for the presence of a masculine-feminine polarity (Levinson, Darrow, Klein, Levinson, & McKee, 1978) and a bipolar creativity dimension in the empirical structure of admirable traits and (2) to assess preferences of males versus females with regard to any emerging masculine-feminine trait clusters.

The two personality dimensions studied were, masculinity-femininity & creativity, obviously somewhat arbitrarily chosen from the "infinite" universe of 4000 traits. Choice of these particular dimensions resulted from previous research interests of the present author in Creativity (Hyman, 1978) & Adult Development (Hyman, 1977).

Hypothesized Dimensions

Masculinity-Feminity

Although there has been during the last several hundred years a reduction in gender distinctions, there still remains in our social institutions and individual lives a considerable splitting between masculine and feminine (Bardwick, 1979; Levinson, et al., 1978, p.229; Spence & Helmreich, 1978, pp. 15, 17). Masculinity is associated with achievement, ambition, power, control, and thinking versus feeling (Goldberg, 1976; Jung in Campbell, 1971; Levinson, et al, 1978, p. 228f.).

Men are allowed a narrow range of feelings related to assertiveness, rivalry, and task attainment, but not those involving dependency, intimacy, grief, sensuality, and vulnerability (Goldberg, 1976; Levinson, et al, 1978, p. 233). It is the "feminine" in man to experience depth of feeling, to be sensitive (Jung in Campbell, 1971; Levinson, et al., 1978, p. 234).

Corroboration of the above definition of masculinity emerges from a study by Collier and Gaier (1959) of the childhood story heroes of 80 undergraduate college men. In this study retrospective data on childhood story heroes emphasized the activities of one leading character, usually a human male, often a solitary one, who overcame external obstacles in an active, independent, competitive way, and who prevailed through strength and ingenuity, skill, and daring, i.e. through personal adequacy. Collier and Gaier (1959) believe that their data showed male distrust of sensuality and dependency and little evidence of desire for close relationships with other people.

Although masculinity-feminity dimensions have been incorporated into various personality tests, the Comrey Personality Scales (Comrey, 1970), the California Psychological Inventory (Gough, 1975), and the Bem Sex Role Inventory (Bem, 1974), for example, these tests have not defined masculinity-feminity in terms of a polarity concerning acceptance of weakness, dependency, intimacy, and feeling versus independence, power, and control. For the present study trait terms and or phrases were chosen to represent this polarity (see Table I) and were studied through multidimensional scaling techniques.

Insert Table I about Here

Creativity

In a summary of the literature on traits of the creative personality, Schubert and Biondi (1977) discuss correlational evidence associating various personality traits with creativity. In no study known to the present author, however, has a unified dimension of "creative" traits in the space of perceived personality trait relationships been empirically validated. Thus, creativity-noncreativity constituted the second dimension of interest in the present study. To represent this dimension, traits describing creative persons were matched by seemingly opposite traits, thus forming a hypothesized bipolar creativity dimension (see Table I).

Method

Instrument

In order to accomplish the objectives of the study, the words chosen to represent the masculinity-feminity polarity and the creativity dimension were embedded within a group of words offered as admirable traits by a diverse group of subjects requested by the experimenters to write down one trait which they considered most admirable; these terms constitute the "miscellaneous" category presented in Table I. The final list of 53 traits was randomly ordered and presented with instructions to write each trait term in one of nine boxes numbered on a 9-point continuum from "least admirable" (1) to "most admirable" (9)(Wish, Note 1). The experimental task was set in the context of traits "we believe in or would like to be".

Sample

The constructed instrument was administered anonymously to 16 female and 43 male business administration students enrolled in

a Masters program in Business Administration at Adelphi University. Of the 58 students who provided data on their occupations, seven listed themselves as students, five listed occupations outside the business world, and the remaining 36 were in bookkeeping, banking, sales, accounting, advertising, marketing, engineering, and other areas of business. Ages of the subjects ranged from 21 through 50. Forty-seven subjects, however, were included in the age range from 22 through 30, with only 12 subjects over the age of 30. Thirty-one of the 43 male subjects were under 30; all of the women were 30 or less.

Data analysis Techniques

Data analysis techniques related to recovery of the trait space included multidimensional scaling of the 53 traits using TORSCA-9 (Young, Note 2). Two measures of proximity were used in two separate analyses: (1) the number of times each of the $n(n-1)/2$ word pairs was sorted into the same category (Wish, Note 1) and (2) the D^2 value between pairs of words.

To accomplish objective #2 above, assessment of sex differences in preferred traits, two scale scores were created for each subject for each of the dimensions recovered from the multidimensional scaling (MDS) of the words; preference values assigned to the words with the highest positive and highest negative scale values on each dimension were summed to create these scale scores. Males and females were then compared by means of two sample t-tests for each of the scale scores of interest.

Results

Scaling of Trait Terms

Scaling of the trait terms using D^2 as the measure of proximity indicated

that stress, or "badness of fit", approached the "fair" range (Kruskal, 1964) for the three-dimensional solution, for which stress was calculated as .118, and did not drop appreciably after the four dimensional solution, for which stress was .094. For the TORSCA scaling with number of times sorted into the same category as the measure of proximity*, stress fell off rapidly until the three and four dimensional solutions (stress values of .229 and .182 respectively), but the goodness of fit remained "fair" to "poor" (Kruskal, 1964). Although stress for the configurations based on D^2 was much lower than that of the configurations based on the "same-category" proximity measure (and coordinate values were somewhat higher), the first two dimensions based on both proximity measures were markedly similar. It was therefore considered justified to concentrate on the four-dimensional "same-category" solution, which seemed most interesting in light of the hypothesized dimensions. It is the four-dimensional solution based on the "same-category" proximity measure which is discussed in the remainder of this paper. The varimax-rotated configuration for this solution is presented in Table II, with graphic illustrations appearing in Figures 1 and 2.

Insert Table II and Figures 1 and 2 about here

As can be seen in Figure 1, Dimension II contains many of the hypothesized "feminine", or "emotional", words at its negative pole. At its positive pole

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*Hereafter referred to as the "same-category" proximity measure.

there emerges a cluster containing some of the words hypothesized as masculine and some hypothesized as "noncreative". Dimension I is comprised of many of the "creative" words at the negative/pole and many "good social" and "good intellectual" (Rosenberg & Sedlak, 1972) words at the positive pole. Although Dimension III is difficult to interpret, Dimension IV seems to contain many of the hypothesized masculine words at its positive pole: Strong, Independent, Self-sufficient, Brave, with Autonomous, Has Initiative, Risk-Taking, Assertive, and Self-reliant clustered nearby, although toward Dimension III. The negative pole of Dimension IV contains words which describe a somewhat constrained, inward-looking, passive person, as opposed to the potent active person described by the positive pole.

Dimension II, then, emerges as an emotional/unemotional-competitive dimension. Dimension I has a somewhat evaluative quality (Osgood, Suci, & Tannenbaum, 1957) with many of the hypothesized creative traits clustering together in oppostion to socially desirable traits. Dimension III seems undefinable, and Dimension IV appears to be related to potency and/or activity which may in turn relate to power aspects of masculinity-femininity (Levinson, et al., 1978; Osgood, et al, 1957, see loadings for the terms "masculinity-femininity"). The words with the highest scale values on both positive and negative poles of dimensions I, II, and IV are presented in Table III.

Insert Table III about here

Sex Differences in Trait Preference

In order to evaluate sex differences with regard to dimensions relating to the hypothesized masculine-feminine polarity, scale scores were created for

each subject by summing preference ratings for the trait terms at each pole of Dimensions II and IV, as presented in Table III. T-tests for males versus females were carried out using these summed preference ratings. Means, standard deviations, t values, and F values from this analysis are presented in Table IV. Although the t value for the positive pole of Dimension II was not statistically significant, that for the negative, "Feminine", pole was statistically significant,

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Insert Table IV about here

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indicating that females definitely admired these emotional traits more than did males. The t value based on male-female means for the negative pole of Dimension IV was not statistically significant. The means for the positive pole, however, showed a statistically significant difference. Females thus admired the traits Strong, Brave, Self-sufficient, etc. more than did males.

Discussion

Strong support emerged in this study for a bipolar dimension related to emotional control and competetiveness versus depth of feeling and sensitivity. Although the second dimension was interpreted as evaluative, some of the hypothesized "creative" traits did cluster together on this dimension. It may be that the opposite of creativity was poorly defined, thus partially accounting for the lack of clear evidence for a creativity dimension. The introduction of the obviously "good-social" and "good-intellectual" terms in the miscellaneous category of Table I may also have affected the outcome of this study, which raises the issue discussed by Green and Carmone (1970) of the effect of context on multidimensional scaling solutions.

Although evidence for "reality" of dimensions after the first two, particularly for the third dimension, was slightly ambiguous, Dimension IV seems to have been relevant in distinguishing male/female admired traits. It's "reality" is supported as well by its relationship to Potency, which has emerged quite consistently in factor analytic studies of Semantic Differential ratings (Osgood, et al., 1957).

The emergence of two dimensions related to the hypothesized masculine-feminine traits is of considerable interest in light of Levinson's (1978) delineation of five aspects of masculinity-feminity. (1) homosexuality concerns, (2) bodily prowess-toughness, (3) achievement-ambition versus nuturing, (4) power versus weakness, and (5) thinking versus feeling. The power versus weakness and feeling versus nonfeeling dimensions which emerged in this study certainly related to aspects #4 and #5. Perhaps a future study should explore empirical validiation of all five of Levinson's suggested aspects of masculinity-feminity.

The sex differences which emerged in this study indicated that women definitely admired the hypothesized "feminine" traits more than did men, yet they also admired aspects of potency more than did men. There thus seemed to be no contradiction for these women in admiration of both "masculine" and "feminine" traits. They were "androgynous" (Bem, 1974; Lodico & Gaa, Note 3), incorporating both feminine characteristics of sensitivity and emotionality and potency aspects of masculinity. It should be noted that findings of the study are limited to a small sample of women and to women (and men) who were undoubtedly quite career committed, as they were working toward a masters degree, and who were committed to careers in a traditionally masculine field.

Previous research indicates that women who choose more "masculine" occupations exhibit personality characteristics which are atypical of women in general (Kotcher, 1975). This might account for the preference for "Potency" exhibited by women in this study. Career-oriented women, however, have also been found to be lower on stereotypically feminine personality characteristics than are homemaker-oriented women (Angrist, 1970, Kotcher, 1975). The women in this study, although not compared with homemaker-oriented women, seemed able to encompass both stereotypically masculine and stereotypically feminine personality dimensions.

The preferences of men in the study were somewhat contradictory. The finding that women preferred the "emotional" as compared to men supports the research hypotheses, while female preference for the Potency trait terms does not. The relative nonacceptance of emotionality on the part of men indicated by these findings is of particular interest in light of the under-thirty age of most of the men in the sample. Theory would predict that neither men nor women fully integrate aspects of both masculinity add femininity until midlife (Levinson, 1978, p.235f; Jung in Campbell, 1971). Study of the relationship of age and attitudes toward emotional traits in men would seem to be a logical next step toward a theory of adult growth for men.

Since the male and female samples studied were of similar age, a question also arises as to the factors which might contribute to the apparent greater androgyny of women. Perhaps further research should be directed toward exploring developmental patterns of masculine-feminine aspects in both sexes and toward illuminating differences between patterns for the two sexes.

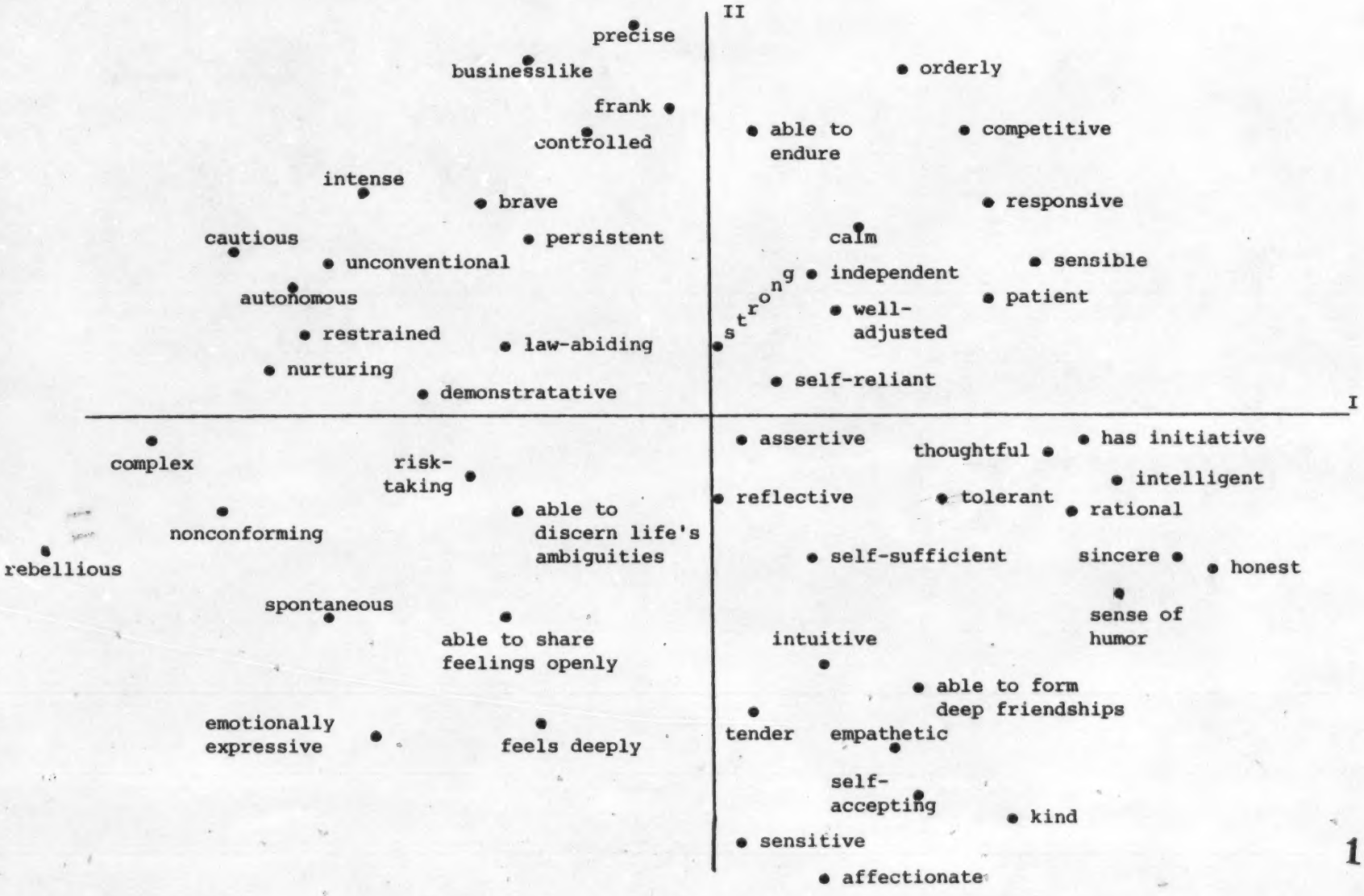

Figure 1

TORSCA-9 FOUR DIMENSIONAL SCALING SOLUTION: DIMENSIONS I AND II

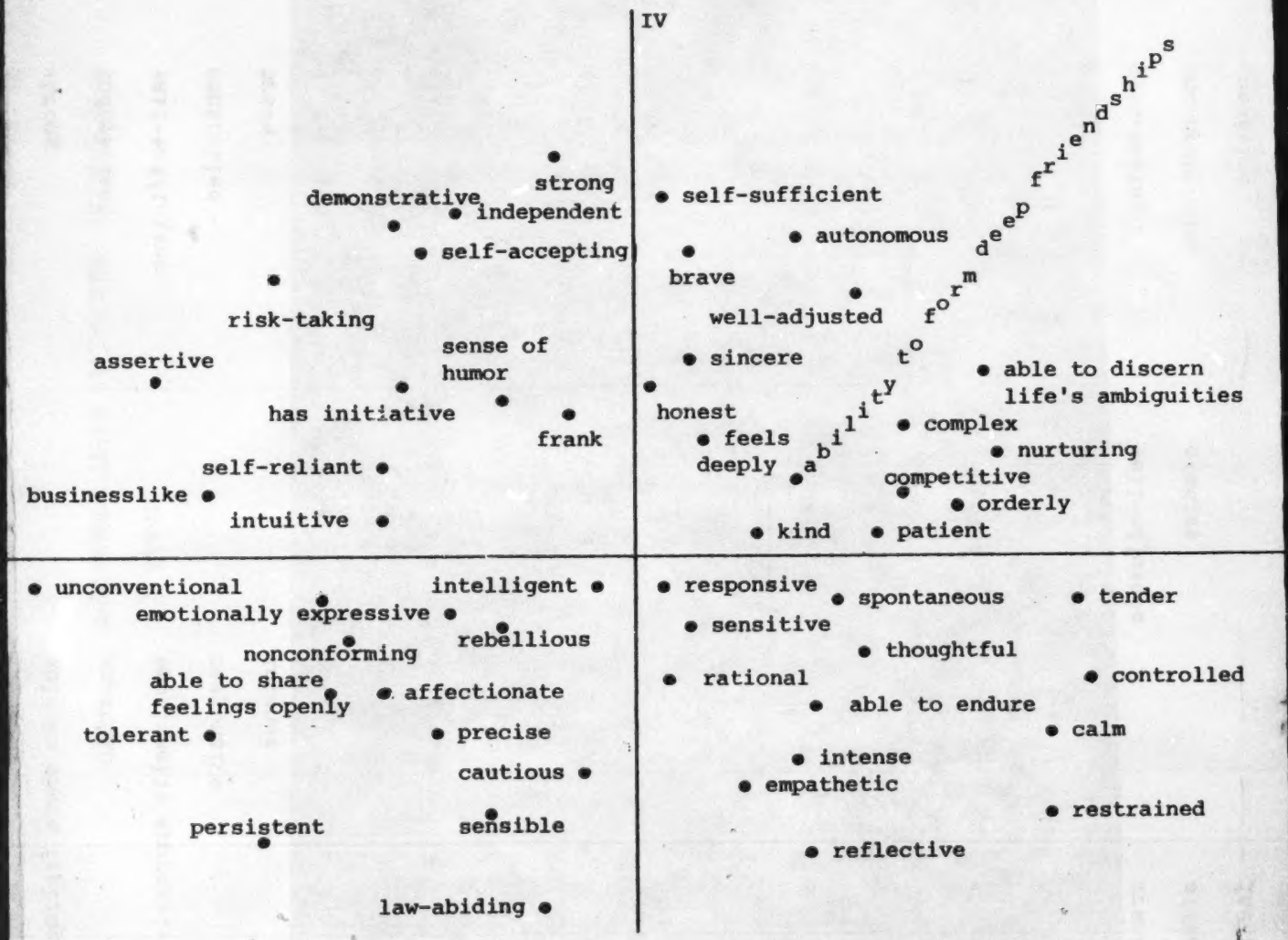

Figure 2

TORSCA-9 FOUR DIMENSIONAL SCALING SOLUTION: DIMENSIONS III AND IV

TABLE I

HYPOTHESIZED PERSONALITY TRAIT DIMENSIONS

Masculine	Feminine
strong	able to share feelings openly
independent	empathic
self-sufficient	emotionally expressive
controlled	responsive
brave	intense
self-reliant	ability to form deep friendships
autonomous	feels deeply
able to endure	sensitive
restrained	able to discern life's ambiguities
assertive	self-accepting
has initiative	nurturing
competitive	tender

Creative	Noncreative	Miscellaneous
spontaneous	orderly	honest
reflective	cautious	sincere
complex	rational	kind
nonconforming	sensible	thoughtful
rebellious	businesslike	patient
persistent	law-abiding	tolerant
risk-taking	well-adjusted	frank
unconventional	precise	affectionate
intuitive		intelligent
sense of humor		demonstrative
		calm

TABLE II

VARIMAX ROTATED CONFIGURATION FOR THE FOUR DIMENSIONAL "SAME-CATEGORY" SCALING SOLUTION

	1	2	3	4
1. Kind	.097	-152	051	014
2. Persistent	-038	078	-126	-159
3. Calm	066	079	135	-071
4. Orderly	076	190	106	014
5. Competitive	110	180	-095	019
6. Controlled	-021	164	172	-058
7. Rational	169	-019	015	-080
8. Empathic	054	-133	-056	-158
9. Cautious	-230	058	-002	-069
10. Nonconforming	-235	-042	121	-052
11. Self-sufficient	045	-044	008	171
12. Intuitive	031	-106	000	-114
13. Self-accepting	069	-139	-064	121
14. Sensible	152	065	-028	-117
15. Self Reliant	052	013	-114	027
16. Complex	259	-010	123	046
17. Autonomous	-207	055	047	142
18. Affectionate	036	-202	-050	-060
19. Intelligent	173	-022	-029	-010
20. Tender	019	-134	163	-013
21. Tolerant	064	-029	-157	-082
22. Demonstrative	-129	016	-098	127
23. Nurturing	-185	025	168	044
24. Risk-taking	-075	-028	-151	100
25. Able to share feelings openly	103	-114	-063	-061
26. Emotionally expressive	079	-169	114	-020
27. Sense of humor	161	-067	-029	090
28. Has initiative	161	007	-083	076
29. Reflective	001	-028	065	-195
30. Assertive	015	-006	-198	076
31. Ability to form deep friendships	088	-110	113	036
32. Intense	-143	111	064	-117
33. Rebellious	-347	-081	-041	-054
34. Well-adjusted	070	022	098	113
35. Responsive	141	118	011	-008
36. Businesslike	-071	177	-142	012
37. Law-abiding	-025	039	-019	-190
38. Unconventional	-152	048	-202	-024
39. Precise	-027	231	-046	-058
40. Feels deeply	-043	-162	056	056
41. Able to discern life's ambiguities	-065	-032	199	098
42. Strong	015	005	-018	181
43. Restrained	-173	030	152	-154
44. Brave	-076	087	027	118
45. Thoughtful	166	-017	085	-043
46. Independent	053	039	-052	172
47. Sincere	158	-044	038	-084
48. Spontaneous	-139	-122	038	-011
49. Frank	-012	187	-004	084
50. Sensitive	024	-188	027	-016
51. Patient	145	048	075	017
52. Honest	191	-042	011	050
53. Able to Endure	025	169	054	-078

Note. Decimals omitted.

TABLE III

Empirical Personality Trait Dimensions

Dimension I

positive pole	negative pole
sensible	rebellious
rational	autonomous
patient	cautious
has initiative	intense
intelligent	complex
honest	nonconforming
sincere	restrained
sense of humor	
thoughtful	

Dimension II

positive pole	negative pole
controlled	sensitive
orderly	affectionate
precise	self-accepting
businesslike	emotionally expressive
competitive	spontaneous
persistent	forms deep friendships
able to endure	tender
	empathic
	feels deeply

Dimension IV

positive pole	negative pole
brave	intense
strong	restrained
self-sufficient	persistent
independent	intuitive
risk-taking	empathic
	reflective
	law-abiding

TABLE IV

MEANS STANDARD DEVIATIONS, t-VALUES, AND

p-VALUES FOR SCALE SCORES BASED

ON MDS RESULTS

Scale	Males	Females	t	P
Emotional	49.91 (13.18)	63.56 (8.10)	-4.79[a]	.000*
Unemotional-competitive	35.93 (7.36)	32.69 (7.09)	1.52	.13
Potency/activity	29.81 (7.42)	34.81 (5.91)	-2.42	.02*
Constraint/passivity	38.07 (6.37)	40.50 (4.62)	-1.39	.17

Note. Standard Deviations appear in parentheses

[a]Separate variance estimate

*$p < .05$

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